In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claim 1, 10, 11, and 14-17.

Claims 3-8 have been withdrawn.

STATUS OF CLAIMS

1. **(currently amended)** A transgenic mouse, comprising a transgene, said transgene comprising a polynucleotide encoding a human tau protein operably linked to at least a portion of a regulatory region of a mouse prion gene, wherein said regulatory region comprises a promoter of said prion gene, a 5' flanking sequence of said prion gene promoter and the first PrP exon, wherein said transgenic mouse expresses human tau protein.

2. **(original)** The transgenic mouse of claim 1, wherein said human tau protein is selected from the group consisting of isoforms 352, 381, 410, 383, 412, and 441.

3-8. **(withdrawn)**

9. **(original)** The transgenic mouse of claim 1, wherein said human tau protein is expressed in the brain.

10. **(currently amended)** The transgenic mouse of claim 1, wherein said regulatory region further comprises ~~said prion gene promoter and 5' flanking sequence, the first PrP exon,~~ the first PrP intron, and the initial, noncoding portion of the second PrP exon.

11. **(currently amended)** A model of neurodegenerative disease comprising a transgenic mouse as in any of claims 1, 2, 9, or 10 ~~1-10~~.

12. **(original)** The model of neurodegenerative disease of claim 11 for use in the screening of drugs to treat said disease.

13. **(original)** The model of neurodegenerative disease of claim 11 for use in genetic crosses to generate models of Alzheimer's disease.

14. **(currently amended)** A method of screening for a drug that modulates hyperphosphorylation of tau comprising the steps of

a) administering the drug to a transgenic mouse of claim 1, ~~the transgenic mouse comprising a transgene, said transgene comprising a polynucleotide encoding a human tau protein operably linked to at least a portion of a regulatory region of a mouse prion gene,~~ wherein the transgenic mouse expresses hyperphosphorylated human tau protein; and

b) comparing the state of phosphorylation of tau in a second transgenic mouse to which the drug was not administered to the state of phosphorylation of tau in the transgenic mouse to which the drug has been administered, wherein a difference in phosphorylation indicates the drug modulates hyperphosphorylation of tau.

15. **(currently amended)** A method of screening for a drug for treatment of a neurodegenerative disease comprising the step of administering the drug to a transgenic mouse of claim 1 which exhibits neurodegenerative disease characteristics~~, the transgenic mouse comprising a transgene, said transgene comprising a polynucleotide encoding a human tau protein operably linked to at least a portion of a regulatory region of a mouse prion gene, wherein the transgenic mouse expresses human tau protein~~, and wherein it is determined whether the drug at least partially abates at least one of the characteristics of the disease.

16. **(currently amended)** A method of screening for a drug that blocks hyperphosphorylation of tau comprising the step of administering the drug to a transgenic mouse of claim 1, ~~the transgenic mouse comprising a transgene, said transgene comprising a polynucleotide encoding a human tau protein operably linked to at least a portion of a regulatory region of a mouse prion gene,~~ wherein the transgenic mouse

expresses hyperphosphorylated human tau protein, and wherein it is determined whether the drug at least partially blocks hyperphosphorylation of tau in the transgenic mouse.

17. **(currently amended)** A method of screening for a drug that blocks formation of filamentous aggregates of tau comprising the step of administering the drug to a transgenic mouse of claim 1, ~~the transgenic mouse comprising a transgene, said transgene comprising a polynucleotide encoding a human tau protein operably linked to at least a portion of a regulatory region of a mouse prion gene,~~ wherein the transgenic mouse expresses human tau protein forming filamentous aggregates, and wherein it is determined whether the drug at least partially blocks formation of filamentous aggregates of tau in the transgenic mouse.